AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings of claims in the application:

LISTING OF CLAIMS:

Claims 1-24 (Cancelled)

25. (New) A method of making a device usable for the detection of biomolecular interactions, comprising

providing a substrate of a suitable material;

performing a stamping procedure using soft lithography to provide a pattern of hydrophilic and hydrophobic areas on said substrate;

applying an aqueous solution of at least one reporter molecule to at least selected ones of said areas, a property of said reporter molecule being detectable and capable of changing as a result of interaction with a biomolecule;

incubating the substrate with applied solution for a predetermined time;

removing excess solution; and

drying the substrate.

26. (New) The method as claimed in claim 25, wherein said reporter molecule is selected from the group consistng of conjugated polyelectrolytes, copolymers or homopolymers of thiophene, pyrrole, aniline, furan, phenylene, vinylene or derivatives thereof.

27. (New) The method as claimed in claim 26, wherein said conjugated polyelectrolyte is fluorescent.

28. (New) The method as claimed in claim 25, wherein said reporter molecule is capable of interaction with a

biomolecule, and wherein said interaction will cause a change in said detectable property.

29. (New) The method as claimed in claim 25 wherein said substrate comprises silicon wafers, glass, glass slides, glass beads, glass wafers, silicon rubber, polystyrene, polyethylene, fluorinated hydrocarbon polymers, silica gel beads, gold, indium tin oxide-coated materials, filter paper made from nylon, cellulose or nitrocellulose, standard copy paper or variants thereof and separation media or other chromatographic media

30. (New) The method as claimed in claim 25, wherein said stamping procedure further comprising attaching to selected ones of said areas any of one or more receptor molecules and one or more target analytes alone or in combination, and forming a complex with said reporter molecule.

31. (New) The method as claimed in claim 30, wherein said receptor molecules are selected from the group consisting of peptides, carbohydrates, nucleic acids, lipids, pharmaceuticals, antigens, antibodies, proteins, organic polymers or combination of these molecules capable of interacting with said target analyte.

32. (New) The method as claimed in claim 30, wherein said target analytes are selected from the group consisting of cells, viruses, bacteria, spores, microorganisms, peptides, carbohydrates, nucleic acids, lipids, pharmaceuticals, antigens, antibodies, proteins, enzymes, toxins, organic polymers or combinations of these molecules that are capable of interacting with said receptors or reporter/receptor complexes.

33. (New) The method as claimed in claim 25, wherein the stamping procedure comprises the following steps:

bringing a patterned or non-patterned stamp into conformal contact with the substrate for a period of time, the stamp being capable of modifying the surface of the substrate to exhibit said hydrophilic and hydrophobic areas;

placing a solution containing one or more of a reporter molecule, a target analyte, a receptor molecule or a complex between two or more of these on the pattern.

34. (New) The method as claimed in claim 25, wherein the stamping procedure comprises the following steps:

preparation of a film containing the reporter molecule, target analyte or complex between the reporter and target analyte from solution on said substrate;

placing a patterned or non-patterned stamp on the film on the substrate for a period of time, the stamp being capable of modifying the surface of the substrate to exhibit said hydrophilic and hydrophobic areas;

bringing a solution containing one or more of a reporter molecule, a target analyte, a receptor molecule or a complex between these into conformal contact with the pattern;

incubating a period of time;

removing excess solution is removed from the surface.

35. (New) The method as claimed in claim 33, wherein the step of removing the excess solution is carried out by blowing an inert gas, such as nitrogen on the surface.

36. (New) The method as claimed in claim 25, wherein the stamping procedure comprises applying a layer of plastomer molecules, suitably polyolefin plastomer (POP) molecules, preferably PDMS molecules on the substrate.

37. (New) A method of determining selected properties of analytes, comprising: detecting a change of a property of a reporter molecule, provided on a device as claimed in claim 25, in response to an interaction between the reporter and an analyte; and using the detected change to determine said selected property of said analyte.

38. (New) The method as claimed in claim 37, wherein the change of said property is detected by measuring fluorescence, Förster resonance energy transfer (FRET), quenching of emitted light, absorption, impedance, refraction index, mass, visco-elastic properties, thickness or other physical properties.

39. (New) A biosensor device, comprising a patterned substrate having hydrophilic and hydrophobic areas, and at least one reporter molecule, a property of which is detectable, said reporter molecule being bound to selected ones of said hydrophilic and hydrophobic areas on said patterned substrate.

40. (New) The biosensor device as claimed in claim 39, wherein said reporter molecule is selected from the group consisting of a conjugated polyelectrolyte, copolymers or homopolymers of thiophene, pyrrole, aniline, furan, phenylene, vinylene or derivatives thereof.

41. (New) The biosensor device as claimed in claim 40, wherein said conjugated polyelectrolyte is fluorescent.

42. (New) The biosensor device as claimed in claim 39, wherein said reporter molecule is capable of interaction with a biomolecule, and wherein said interaction will cause a change in said detectable property.

43. (New) The biosensor device as claimed in claim 39, wherein said substrate comprises silicon wafers, glass, glass slides, glass beads, glass wafers, silicon rubber, polystyrene, polyethylene, fluorinated hydrocarbon polymers, silica gel beads, gold, indium tin oxide-coated materials, filter paper made from nylon, cellulose or nitrocellulose, standard copy paper or variants thereof or separation media or other chromatographic media

44.(New) The biosensor device as claimed in any of claims 15 - 19, wherein selected ones of said areas further comprise any of one or more receptor molecules and one or more target analytes alone or in combination, and forming a complex with said reporter molecule.

45.(New) The biosensor device as claimed in claim 39, wherein said receptor molecules are selected from the group consisting of peptides, carbohydrates, nucleic acids, lipids, pharmaceuticals, antigens, antibodies, proteins, organic polymers or combination of these molecules capable of interacting with said target analyte.

46.(New) The biosensor device as claimed in claim 44, wherein said target analytes are selected from the group consisting of cells, viruses, bacteria, spores, microorganisms, peptides, carbohydrates, nucleic acids, lipids, pharmaceuticals, antigens, antibodies, proteins, enzymes, toxins, organic polymers or combinations of these molecules that are capable of interacting with said receptors or reporter/receptor complexes.

47. (New) A biosensor apparatus, comprising a biosensor device as claimed in claim 39, said biosensor device being located in

a receptacle, suitably a flow cell, the apparatus further comprising means for detecting said detectable property.

48. (New) A biosensor apparatus, comprising a biosensor device as claimed in claim 39, said biosensor device being located in a receptacle, suitably a flow cell, the apparatus further comprising means for detecting said detectable property.